

THEREFORE I claim as my invention:

1. A bouncing, gyrating toy doll comprising in combination a large diameter conical shaped compression spring wound from a small diameter low tensile strength spring wire with circular cross-section, a weighted dolls head with neck, a weighted base with feet, horizontally extended arms with hands, said conical shaped spring stands freely upright with the larger flat end of the spring as its base, the smaller end of the spring at the top, said spring consisting of a series of several coils with all the coils separated and far apart giving the upright spring when standing still the outline and stature of a dolls body using few coils, with the weighted dolls head with neck connected to the small diameter top end of the conical spring, and the large round weighted base with feet connected to the matching large diameter bottom end of the conical spring, and the arms with hands connected to each other and the spring centrally and horizontally across the upper part of the spring, and a soft piping material snakes around the spring wire exposing the spring action.
2. The bouncing, gyrating toy doll described in claim 1, wherein the small diameter circular cross-section of spring wire imparts a low tensile strength to the spring, allowing the spring to be compressed completely downward within itself with minimum finger tip pressure applied to the top of the head and causing no distortion to the spring when released.
3. The bouncing, gyrating toy doll described in claim 1, wherein the weighted head with neck mounted at the top of the spring achieves its desired size, weight and strength preferably as a blow molded unit including the neck at the base of the head and a flange extending outward around the base of the neck, with the head unit weighted so that upon release of the spring from its fully compressed perigee position the weighted head with the spring pick up enough inertia to carry the head and the spring to an apogee substantially higher than its stationery position and at which point the weight of the head and the tensile strength of the spring pick up enough kinetic energy to return the head and the spring almost to the fully compressed perigee position and again the head and the spring pick up enough kinetic energy to return the spring and the head back up towards

maximum apogee, with the large pitch spacing of the spring coils, the low tensile strength of the spring matched to the weighted head impart a lengthy distance of travel from perigee to apogee and back resulting in a slow cycle of oscillation and with no obstructions or friction and minimum spring tension inhibiting the motion of said spring there is minimum dissipation of the kinetic energy allowing the doll head and spring to repeat the slow oscillating exchange of up and down energy for a considerable period of time without being reloaded after each cycle and after coming to rest when stationery the weighted head does not cause the spring to bend away from its upright free standing position and the spring is strong enough to hold the extra weight of the head upright:

4. The bouncing, gyrating toy doll described in claim 1, wherein the added weight attached to the base of the spring keeps the spring level and upright when not in motion and when the spring is compressed to its fullest and released the base is sufficiently heavy to prevent the base from bouncing up and away from the surface on which it is standing and thereby preventing an equal and opposite reaction between the spring and the base from rapidly dissipating the kinetic energy which would dramatically reduce the bouncing action of the toy.

5. The bouncing, gyrating toy doll described in claim 1, wherein the extended arms and hands being rigidly fastened to each other and rigidly fastened to the coils near the top of the spring dampen the sideway swaying action of the spring stabilizing the 360 degree gyrations of the spring as it oscillates, said arms and hands being a rigid unit and rigidly fastened to the spring prevent rattling which would dissipate the inertia and kinetic energy.

6. The bouncing, gyrating toy doll described in claim 1, wherein a lightweight piping material being snaked around the coiled wire of the spring to simulate clothing does not add friction or become an obstruction that stops the oscillation of the spring as would tubular clothing covering the whole spring.

7. The bouncing, gyrating toy doll described in claim 1, wherein a number of extra dead coils, inactive, are continued, while in production, at the wide base of the spring, parallel to each other and in contact with each other serving as added weight to the base.

8. The bouncing, gyrating toy doll of claim 7, wherein said dead coils are held in a tight cluster with snap-on clips, said clips preventing rattling of the coils when bouncing thereby causing the dissipation of the kinetic energy and the inertia.

9. The bouncing, gyrating toy doll of claim 8, wherein two of the clips at the front of the coils simulate feet and two to the rear of the doll hold the coils together and maintain the vertical position of the spring, one clip sliding back and forth under the spring and one clip sliding back and forth over the spring where the active spring coils up away from the dead coils, with the one sliding under the spring pushing the spring up and forward and the one sliding over the top of the spring pushing the spring down and backward, both together adjusting the spring to a more perfect vertical position.

10.. The bouncing, gyrating toy doll of claim 7, wherein said base of the of the spring is enclosed in a matching diameter circular channel molded of plastic and incorporating the feet to clip the dead coils rigidly into the channel and outwardly extending flanges on the upper rear portion of the channel to fasten and slide the leveling clips one clip going under the active spring and one going over the active spring where the active spring rises away from its dead coils and the plastic channel, the channel having a hole molded in the base to lock the indented end of the spring preventing the spring from rotating in the base, and the feet can also be used as finger grips to lift the toy and operate it without loading it by bouncing it up and down while holding it with your fingers.

11. The bouncing, gyrating toy doll of claim 10, wherein the dead coils used as the weight for the base can be replaced with plaster of paris.

12. The bouncing, gyrating toy doll of claim 1, wherein the neck part of the weighted head has a flange on its base above which the top coil of the spring being rigidly wrapped prevents rattling and resulting dissipation of energy, and an indent in the spring locking the end of the spring to an indent in the neck prevent the head from rotating while indexing the feet and the face so that they are always pointing in the proper direction.

13. The bouncing, gyrating toy doll of claim 10, wherein the large circular molded plastic channel at the base of the spring is crosshatched diametrically across its diameter preventing a young child from placing the spring over his head like a hat.

14. The bouncing, gyrating toy doll of claim 13, wherein a mono-filament, being no part of the action of the toy, is connected between the base of the weighted head and the weighted base, with the length of the filament being longer than the maximum apogee of the spring when in play allowing the filament to remain slack while the toy is oscillating not interfering with the development of the kinetic energy in the spring and not adding to the play value of the spring or adding any friction or obstruction but when the toy is not in use and is lifted and carried by the head or the hand the filament prevents the weighted base of the spring from stretching the spring beyond its tensile limit and permanently distorting itself.

15. The bouncing, gyrating toy doll of claim 13, wherein a clamping means is hinged to the base of the toy and when rotated to its vertical position and then clipped to the coil above the base enables the toy to maintain its upright operating position when clamped to a vertical surface such as the headboard of a crib or an open draw or when the clamp is rotated horizontally it can be clamped to the edge of a shelf or similar projecting surface.